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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,507	07/16/2003	Masatoshi Sasuga	03120	7509

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ALEXANDRIA, VA 22314

EXAMINER

SHERMAN, STEPHEN G

ART UNIT PAPER NUMBER

2674

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,507

Applicant(s)

SASUGA ET AL.

Examiner

Stephen G. Sherman

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 10 and 11 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 1, item 4 and Figure 6, item 35a. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top

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margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA (Page 1, line 8 to Page 2, line 15) in view of Shimizu et al. (US 2002/0070681).

Regarding claim 1, APA discloses an LED device comprising: a substrate (Page 1, lines 11-14); a blue LED mounted on the substrate for emitting blue light (Page 1, lines 11-14); a white light emitting LED device having a transparent resin covering the blue LED and including phosphor particles each of which has a wave length converting characteristic to convert blue light to yellow light if the particle contacts with the blue light thereby emitting white light due to the mixing of the blue light and the yellow light (Page 1, lines 14-26). APA fails to teach of a red light emitting LED device having a substrate, a red LED mounted on the substrate for emitting red light, and a transparent resin covering the red LED; and the red LED device being disposed so that emitted red light mixes with the white light emitted from a white light emitting LED device. Shimizu et al. disclose a red light emitting LED device having a substrate, a red LED mounted on the substrate for emitting red light (Paragraph [0143]), and a transparent resin covering the red LED (Paragraph [0066]); and the red LED device being disposed so that emitted red light mixes with the white light emitted from a white light emitting LED device (Paragraph [0069]). Therefore it would have been obvious to "one of ordinary skill" in the art to combine the teachings of APA with the two LED structure of Shimizu et al. in order to create an LED lamp which has good color reproducibility and high luminous efficacy.

Regarding claim 2, APA and Shimizu et al. disclose the LED device according to claim 1. Shimizu et al. also disclose an LED device wherein the white light emitting LED device and the red light emitting LED device are mounted on a same substrate (Paragraph [0143]).

Regarding claim 3, APA and Shimizu et al. disclose the LED device according to claim 2. Shimizu et al. also disclose an LED device wherein the blue light emitting LED and the red light emitting LED are covered by a single resin including phosphor particles (Paragraph [0066] and Figure 1, item 16 is the resin which includes the phosphor, item 13 in a single resin. The examiner interprets that it would have been obvious to have transparent resin such that the light could be transmitted.).

Regarding claim 4, APA and Shimizu et al. disclose the LED device according to claim 1. Shimizu et al. also disclose wherein the phosphor particles are particles of YAG (Paragraph [0084]).

Regarding claim 5, APA and Shimizu et al. disclose the LED device according to claim 1. Shimizu et al. also disclose wherein the phosphor particle is green phosphor (Paragraph [0084]).

Regarding claim 7, APA and Shimizu et al. disclose the LED device according to claim 1. Shimizu et al. also disclose wherein the LED device is mounted in a case (Figure 1 and paragraph [0053]. The examiner interprets that the lamp of Shimizu would constitute as a case, in which the LED device is mounted.).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA (Page 1, line 8 to Page 2, line 15) and Shimizu et al. (US 2002/0070681) in view of Maegawa (US 2002/0171911). APA and Shimizu et al. disclose the LED device according to claim 1. APA and Shimizu et al. fail to teach of an LED device wherein the phosphor particle is one of phosphate, silicate and aluminate. Maegawa discloses of an

LED device wherein the phosphor particle is one of phosphate, silicate and aluminate (Paragraph [0024]). Therefore it would have been obvious to “one of ordinary skill” in the art to use the phosphor particles taught by Maegawa with the teachings of APA and Shimizu et al. in order to achieve a high light emission efficiency.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA (Page 1, line 8 to Page 2, line 15) and Shimizu et al. (US 2002/0070681) in view of Mabuchi (US 2002/0034071). APA and Shimizu et al. disclose the LED device according to claim 1. APA and Shimizu et al. fail to teach of an LED device wherein the white light emitting LED device and the red light emitting LED device are disposed on an incident surface of an illuminating panel. Mabuchi discloses of an LED device wherein the LED is disposed on an incident surface of an illuminating panel (Paragraphs [0032] and [0035] and Figure 1. As shown in Figure 1, item 11 is the LED which is incident upon the light emitting surface 126.). Therefore it would have been obvious to “one of ordinary skill” in the art to incorporate the LED device of Mabuchi with the LED device of APA and Shimizu et al. such that the LED devices would be on the incident surface of an illuminating panel in order to uniformly distribute the light emitted by the LED device.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SS


REGINA LIANG
PRIMARY EXAMINER

3 October 2005